

USB Microscope User's Manual



(Win & Mac)

● Introduction

Thank you for your choice of our product - it is a high-tech while easy to use Digital Microscope. With this unit you may see a unique & “bigger” world.

It is applicable in many fields such as visual inspection on electronic components, and materials in a full range of uses, beauty shop and education.

We recommend you reading this manual FIRST to get the best out of this unit.

Computer System Requirements:

- Windows 98SE/ME/2000/XP/VISTA & Mac OS X 10.5 or above
- P4 1.8 or above
- RAM: 256M
- Video Memory: 32M
- USB port: 2.0
- CD-ROM Drive

● Technical Specifications

Image sensor	1.3 Mega Pixels (interpolated to 2M)
Still capture resolution	1600x1200, 1280x1024, 800x600, 640x480, 352x288, 320x240, 160x120
Video capture resolution	1600x1200, 1280x1024, 800x600, 640x480, 352x288, 320x240, 160x120
Color	24 bit RGB
Lens	Dual Axis 27X & 100X microscope lens
Focus Range	Manual focus from 10mm to infinity
Flicker Frequency	50Hz/60Hz
Frame Rate	Max 30f/s under 600 Lus Brightness
Magnification Ratio	20X to 200X
Shutter Speed	1 sec. to 1/1000 sec.
Video format	AVI

Photo format	JPEG or BMP
White balance	Auto
Exposure	Auto
Light source	4 LED (switchable by software)
PC interface	USB2.0
Power source	5V DC from USB port
Operation system	Windows2000/XP/Vista, Mac OS X 10.5 or above
OSD language	English, German, Spanish, Korean, French, Russian
Bundle software	MicroCapture
Size	110mm (L) x 33mm (R)

● Install the software

Insert the driver CD into CD-ROM Drive and this will automatically display the following interface:



1. Install the driver by clicking *install Microscope Driver*

A Install Shield Wizard will walk you through the whole process. Click the “*Next*” button to continue.

In this process a message box will appear on the screen. Please click on “*Continue Anyway*”. (Some versions of drivers may not be tested by Windows Lab testing. However it is safe for both your software and hardware)



2. Install the MicroCapture software

Click *install MicroCapture software* and then reboot the system when asked.

3. You can also browse the User's manual in PDF format and the CD contents by choosing the corresponding menus.

Connecting the Microscope to Computer

1. When using a Windows XP operating system, the following “***Found New Hardware Wizard***” screen will appear upon connecting the unit to your PC via the USB port.

Select the “***Install the software automatically (Recommended)***” option and click the “***Next***” button.



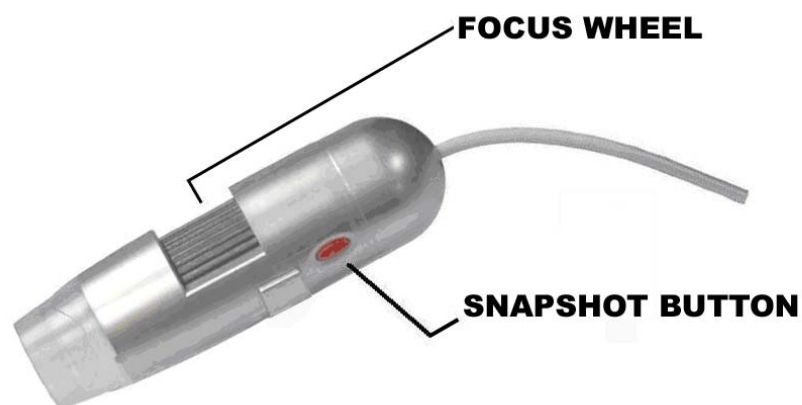
2. Click the “*Continue Anyway*” button on the message box that appears.



3. Click the “*Finish*” button to exit the wizard. Now you may begin to use the Digital Microscope.




Quick Look at the Digital Microscope

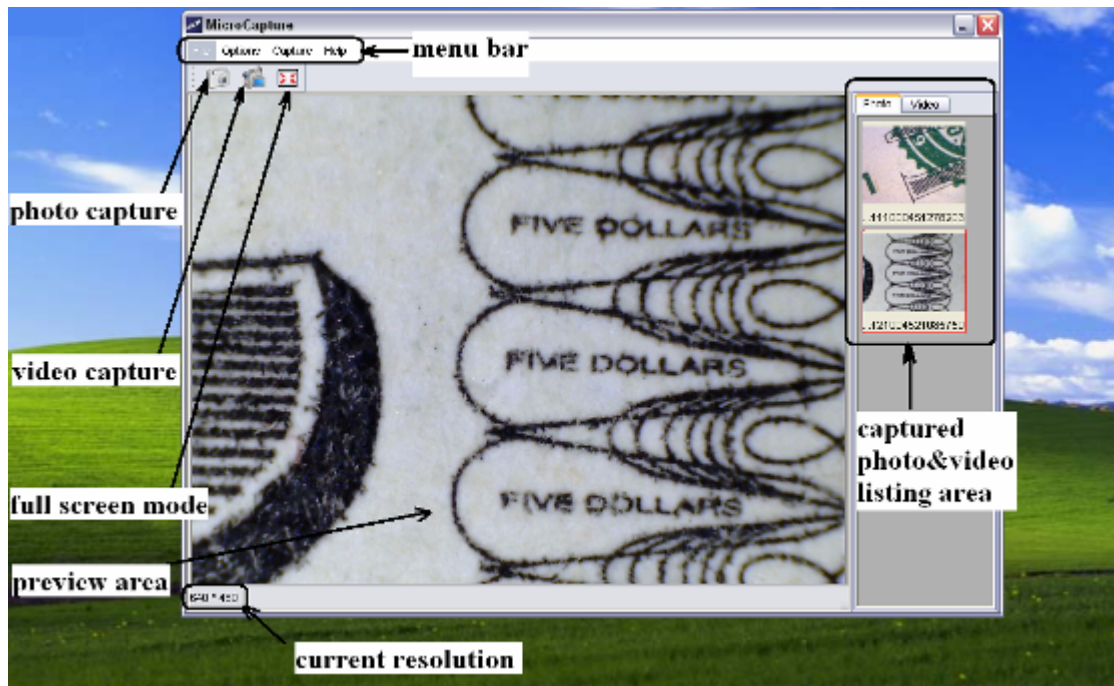


/ Use the FOCUS WHEEL to focus the microscope on the subject.

2/ The SNAPSHOT BUTTON enables user capture snapshots by hardware; please refer to photo capture by software later.

- **Start Microscope**

Connect your Microscope directly to your PC USB port, start the software by clicking the icon  generated on the desktop after installation and then you will see the following box popped up.

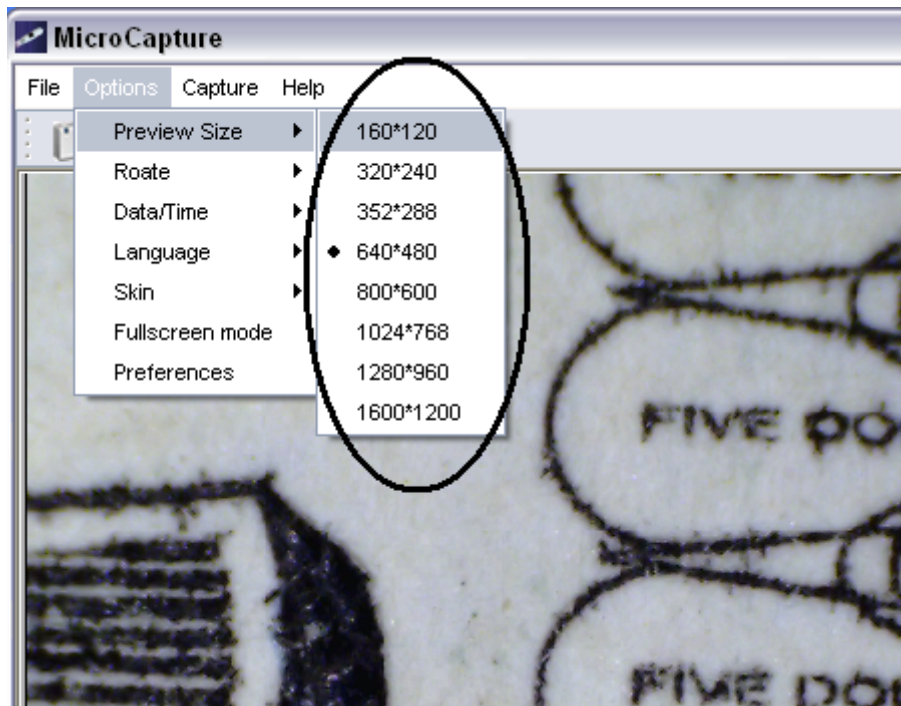


1. Once the Microscope is disconnected from your PC USB port, box showed on Step 1 will pop up as ***“No Device detected, please connect your Microscope directly to your PC USB port.”***

**No Device detected, please
connect your Microscope
directly to your PC USB port.**

- **Change preview size**

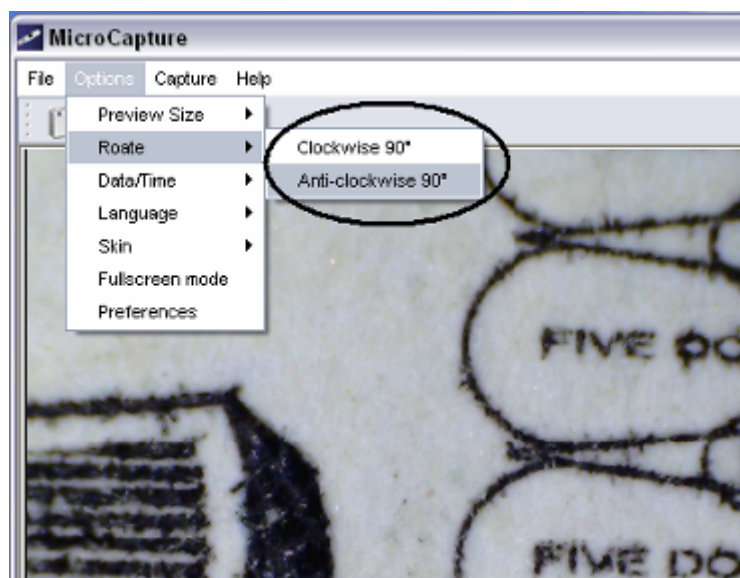
You can change the preview size by the following operation:



Note: The size of the photo taken is the preview size in which the photo previewed.

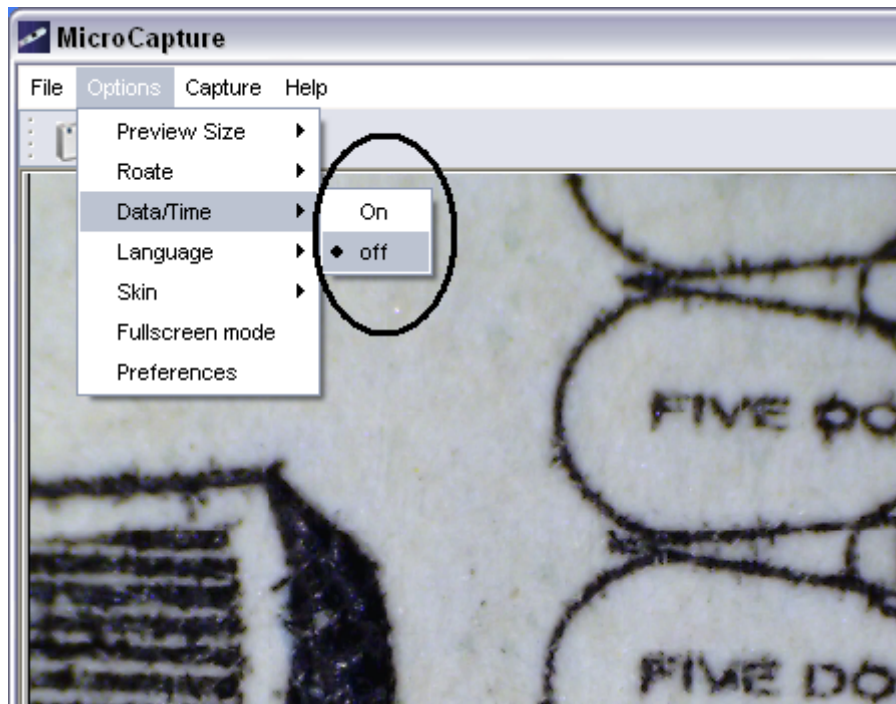
- Rotate the output image angle.

You can rotate the output image by clock-wise and anti-clockwise.



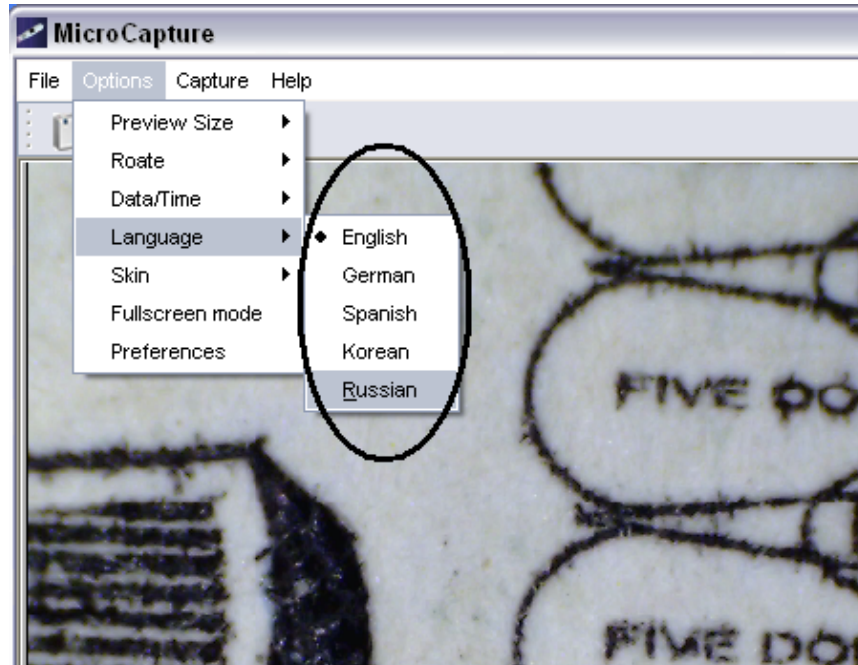
- **Date/Time**

You can display or turn off Date/Time by the following operation:



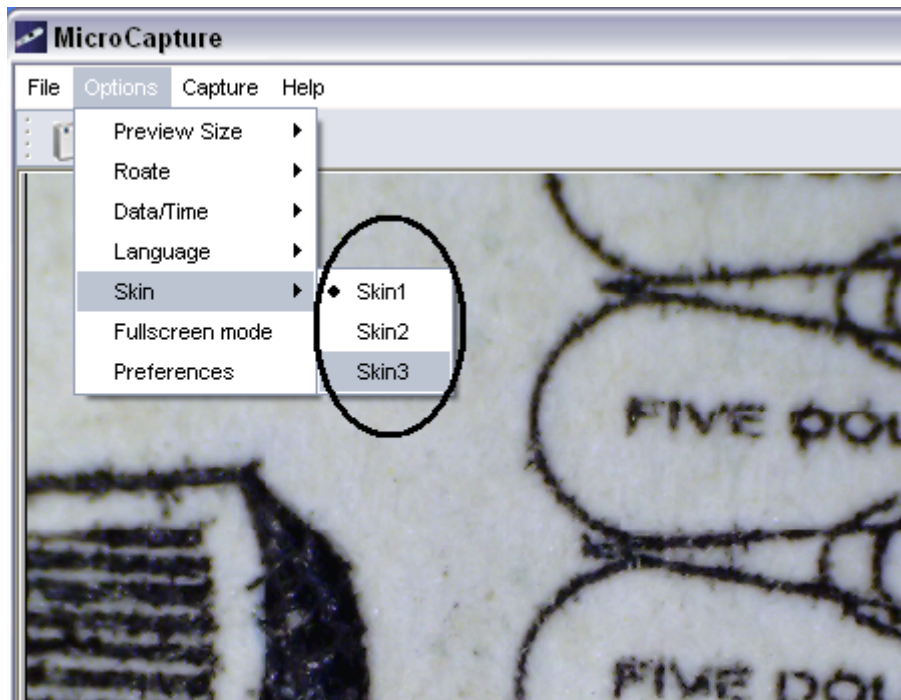
- **Language**

You can choose OSD language by the following operation:



- **Skin**

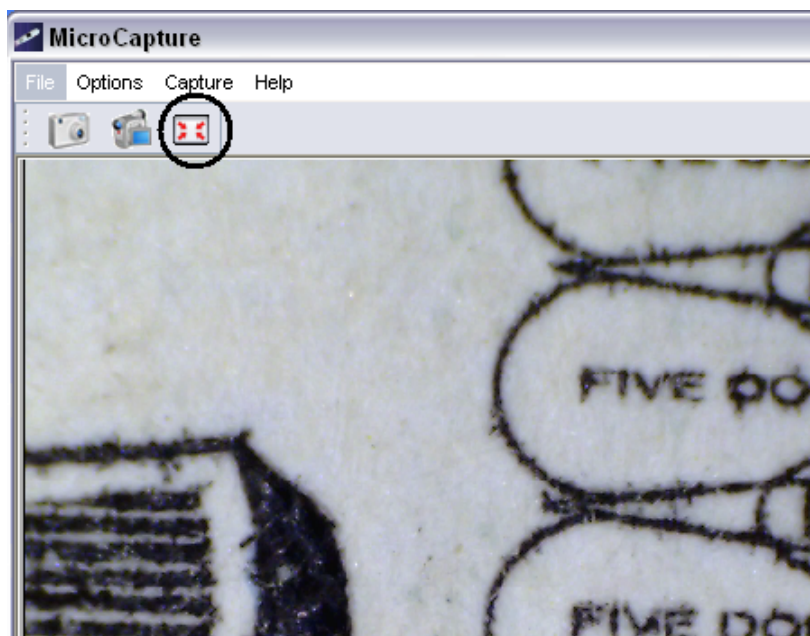
You can choose the frame style you like by the following operation:



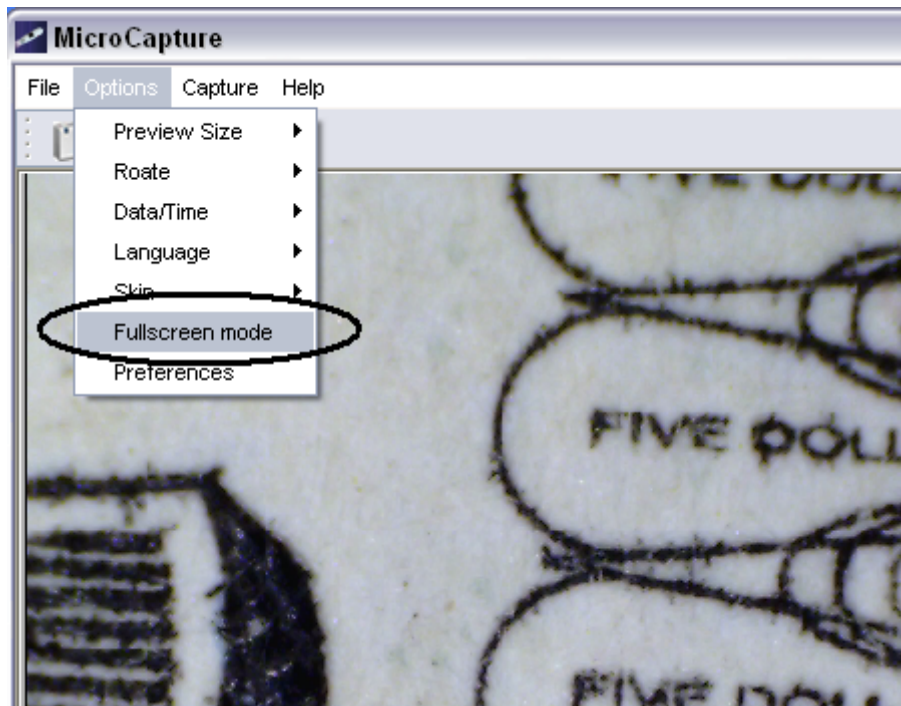
- **Full screen**

1. You can enter & quit full screen by the following operation:

- 1) Double-clicking the preview area.
- 2) Click the full screen icon:

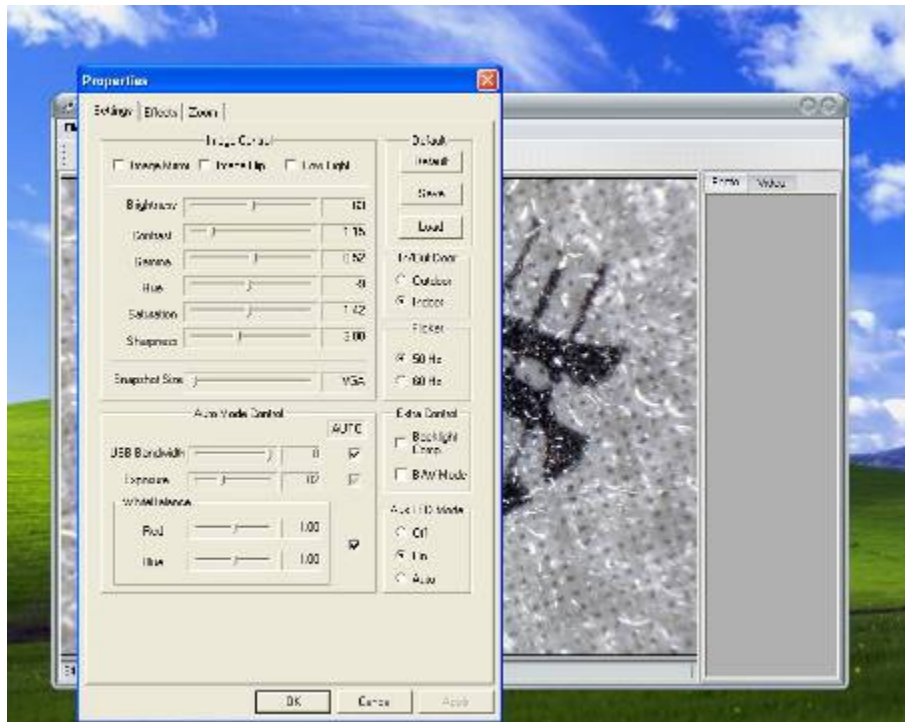


3) Choose ***Full screen mode*** from menu.



- Preferences





Major operations under preferences are as follows:

1. LED on/off

You can choose from Aux LED Mode the LED status as **Off/On/Auto**.


2. Brightness

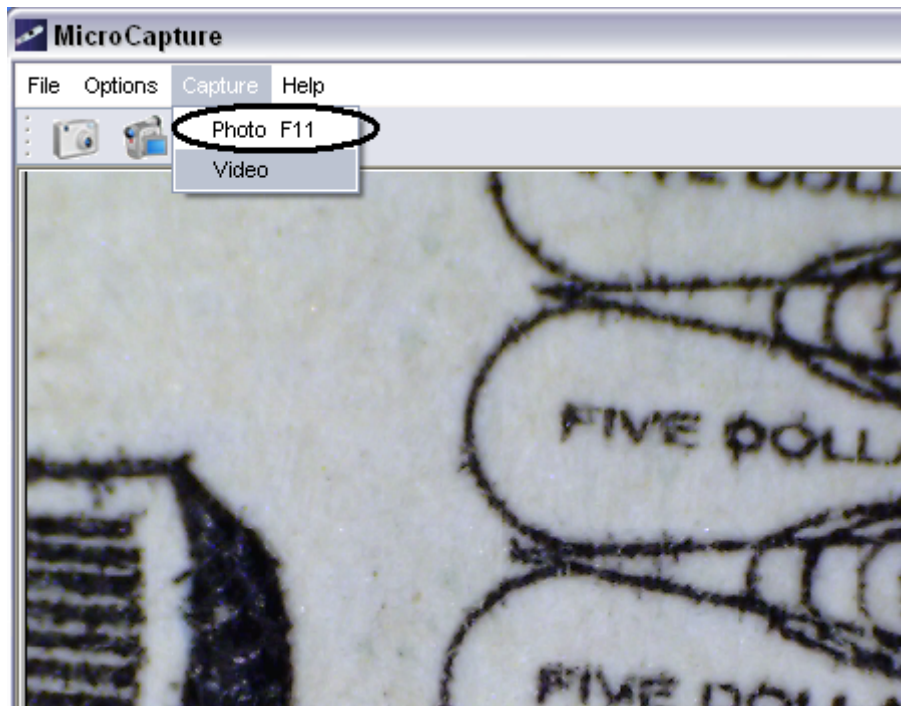
You can adjust the brightness best suitable for object observed.

● Capture

1. Photo capture

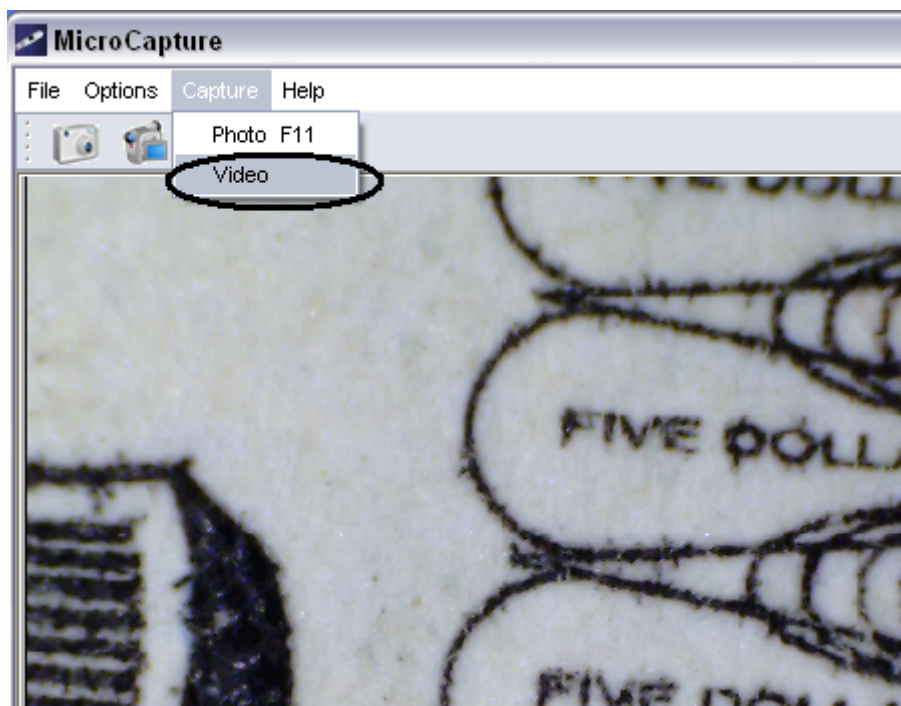
You can take photos by either of the following ways:

- 1) Click the camera button 
- 2) Choose **Capture** and then click **Photo**
- 3) By pressing F11



Photos taken will be saved automatically and listed on the right column waiting for further editing. For editing photo, please refer to later operations.

2. Video capture



You can record video by either of the following two ways:

- 1) Click the video camera button 
- 2) Choose from the menu bar ***Capture*** and then click ***Video***

When recording, there is a red dot flashing on the video camera button.



The video is saved in AVI format.

Stop capture:

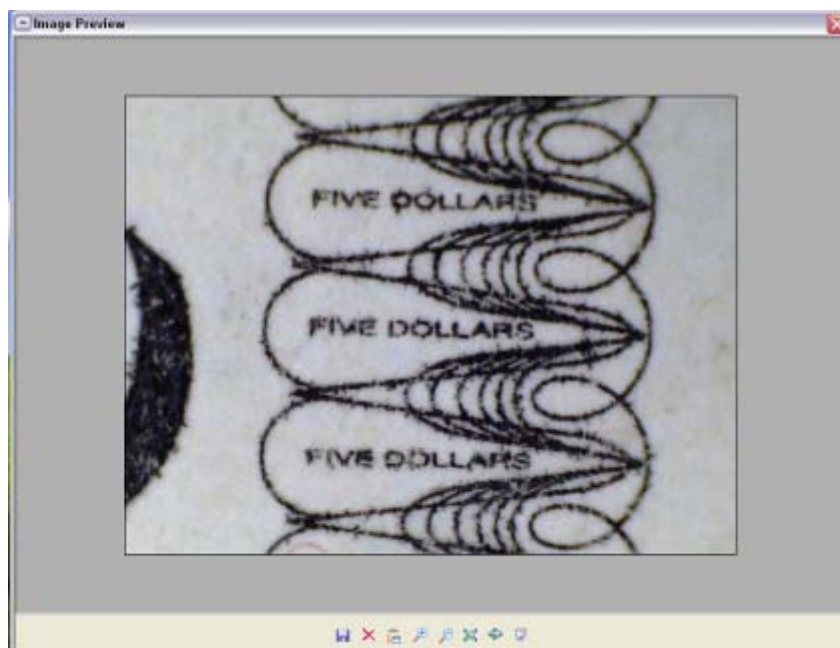
- 1) Click the flashing video camera button
- 2) Choose Capture and then click Stop capturing

Note: Please note the best pixels for video capturing is 640x480.

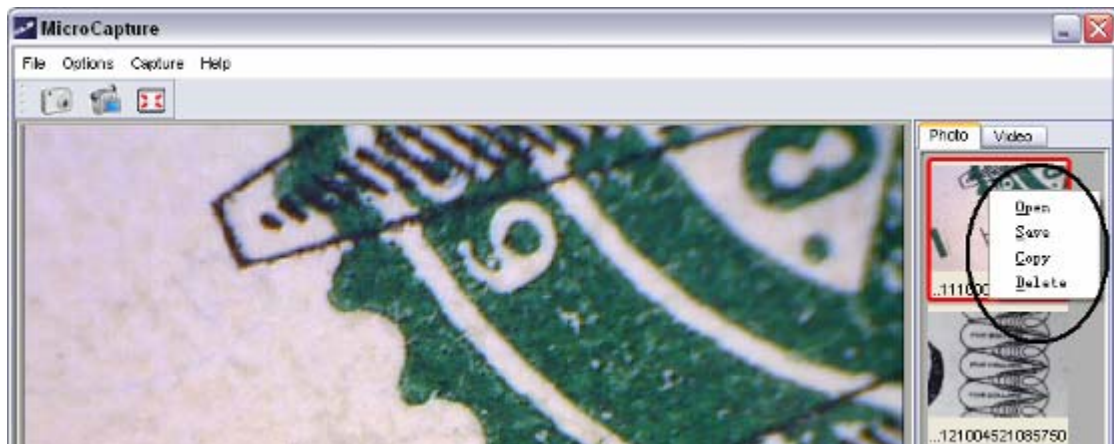
- **Edit photos**

- 1. Preview photos**

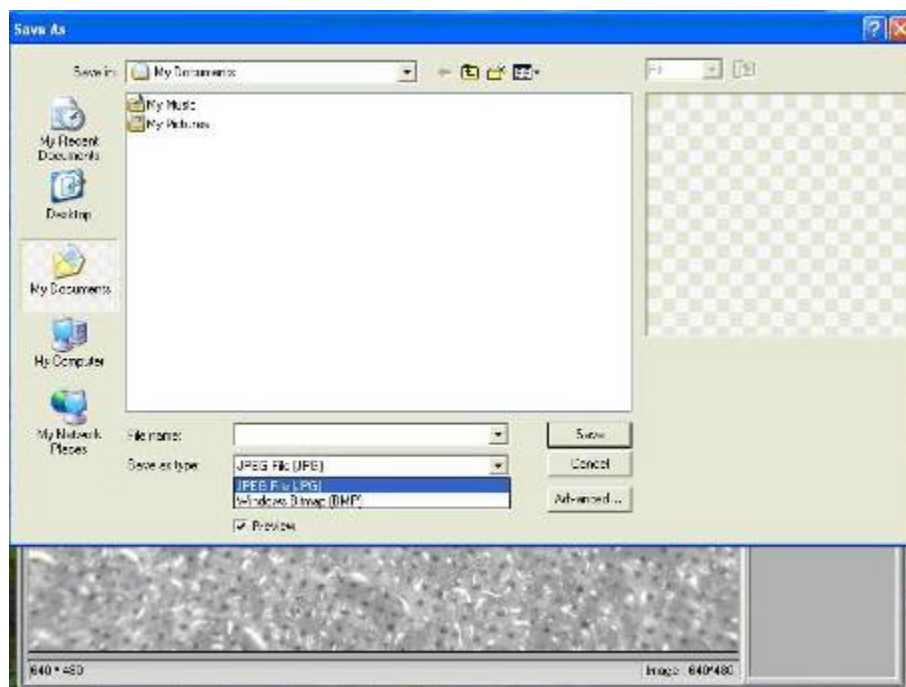
- 1) When putting cursor on the small photo icons listed on the right column, the photo will be displayed at the preview area, with its size showed on the right-end corner.
- 2) You can double click the small photo icon listed on the right column and then an independent preview box will pop up as follows:



2. Save photos



You can save photo by right clicking the small photo icons listed on the right column and then choose *Save*.



The file type can be either jpeg or bmp. The jpeg size in which the photo to be saved is the biggest allowed for jpeg. You can choose lower size by entering into Advanced.

3. Delete photos

By right clicking and then choose **Delete**, you can delete the chosen photo

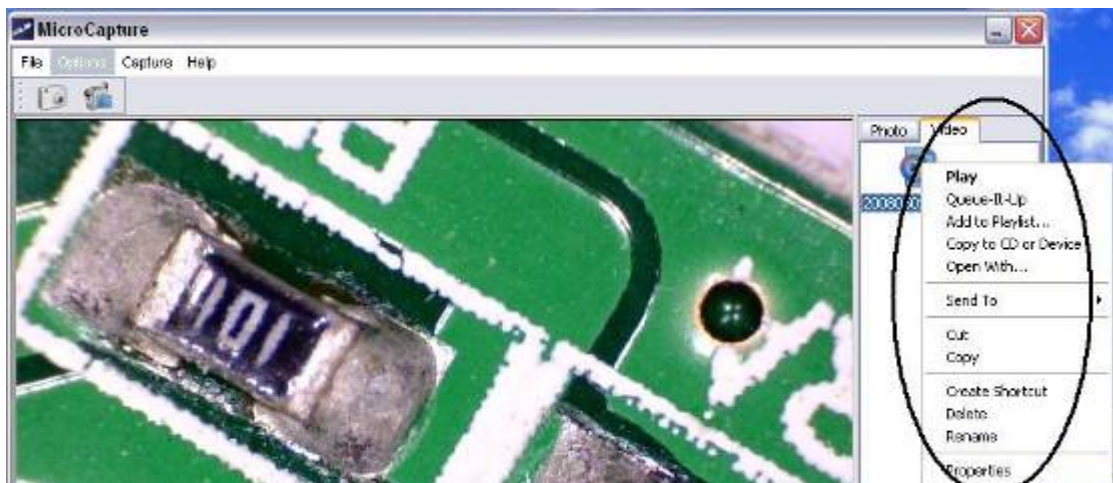
Or, at the independent preview box you can choose delete icon to delete the previewed photo.

4. Copy photos

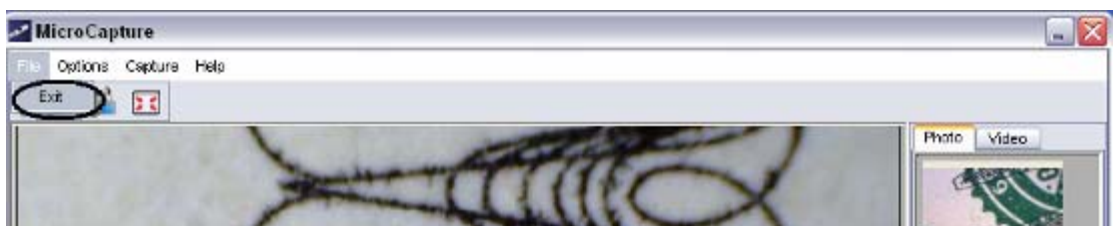
By right clicking and then choose **Copy**, you can copy the chosen photo.

- **Edit videos**

You can right click the video small icon listed on the right column and then choose **Play**, **Copy**, and **Delete** etc.

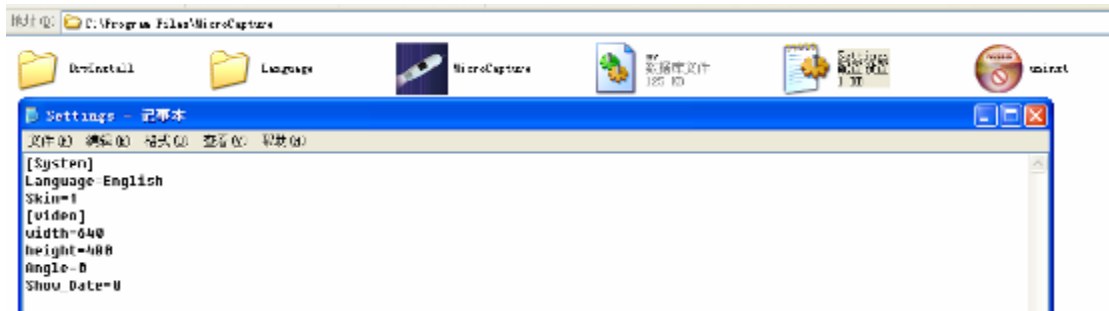


- **Quit MicroCapture**



- **Tips:**

You can preset the preview window size, output image angle, language etc by editing an .ini file named settings at *C:\Programs\MicroCapture*.



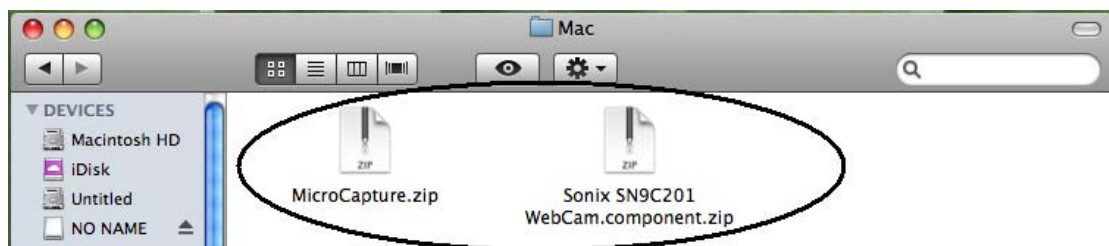
Instructions for Mac software

(for Mac OS X 10.5 or above)

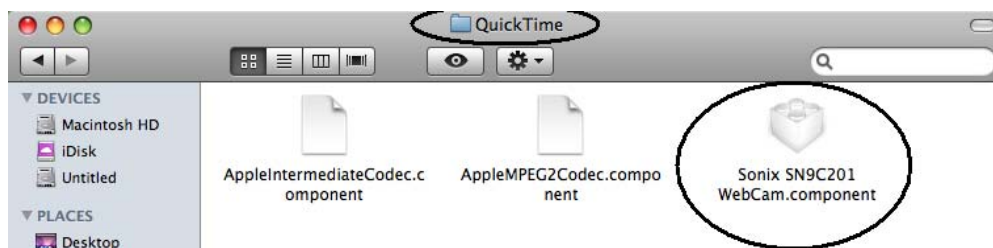


Part I How to Install the Software

1. Open the **Mac** folder on the CD-ROM that comes with the machine.
You will see the following contents:



2. Uncompress **Sonix SN9C201 WebCam.component** and then copy it to **Macintosh HD\Library\Quicktime**. If there is already such a file, replace it with the current one.



3. Uncompress *MicroCapture* and Copy it onto your desktop for daily use.



4. Plug your Microscope directly to USB port. Double click *MicroCaputure*, and then a window named MicroCaputure as follows pops up. That means the Microscope begins to work



Part II How to use MicroCapture

1. Plug your Microscope into USB port directly.
2. Double click MicroCapture icon.

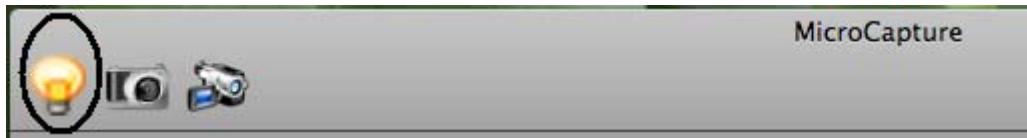


3. Preview

At the central window, you can preview the observed objects.

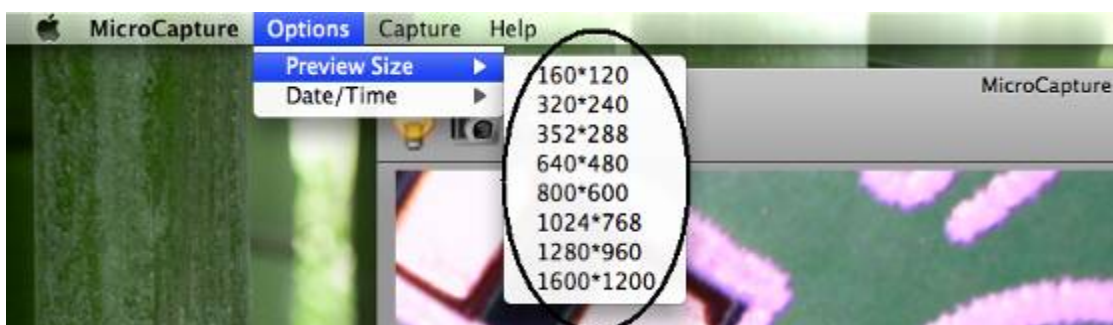


4. Click LED on/off to turn on the LED!!!



5. Change preview resolution

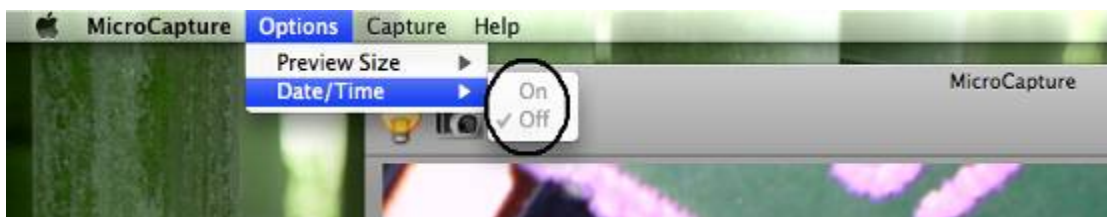
From *Options*, you can choose the preview resolution. The current resolution will be displayed at the left corner of the preview window.



Please note that the preview window size always remain at 640x480. but the current resolution will show at the left corner.

6. Date/Time

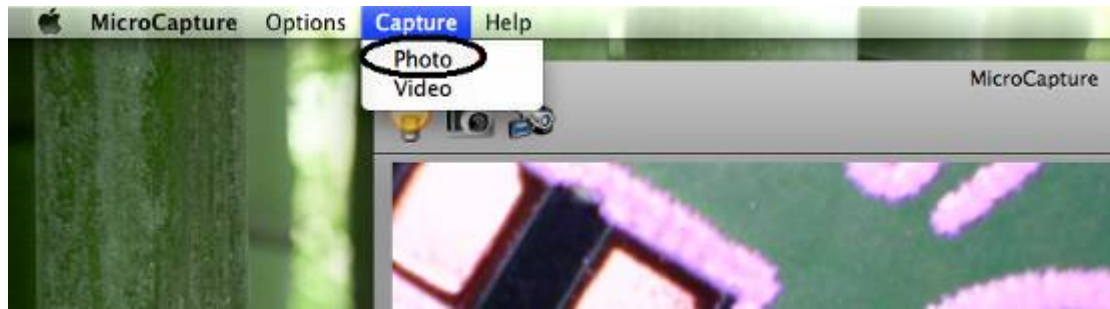
From *Options*, you can turn on/off the date/time



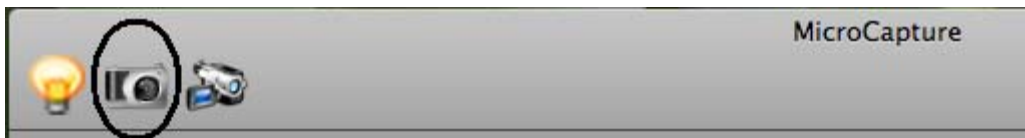
7. Photo capture

You can capture photo by:

- 1) Choosing from *Capture/Photo*



2) clicking photo capture icon

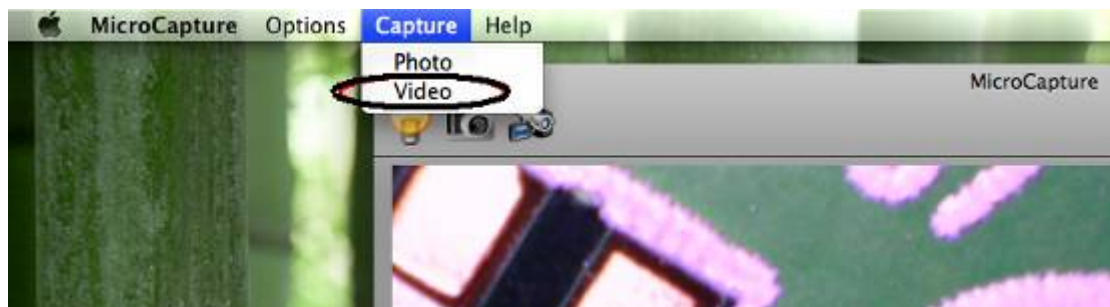


The captured photos will be listed at the right column.

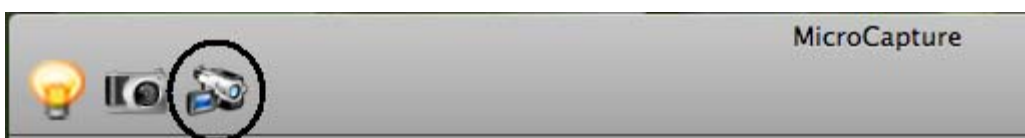
3. Video capture

You can capture video by:

1) choosing from *Capture/Video*



2) clicking video capture icon



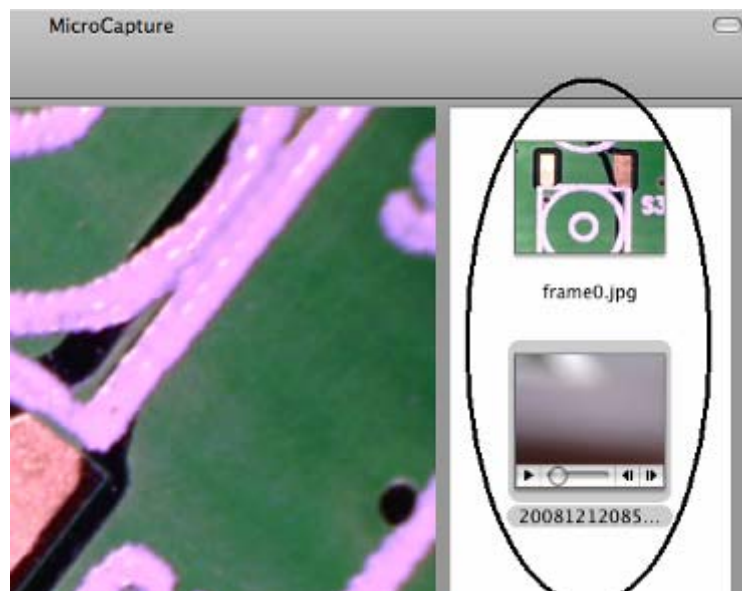
Note: After clicked, the video capture icon will become red and

that indicates video clip is recording. Click the red icon again, you can stop recording!!

The captured videos will be listed at the right column.

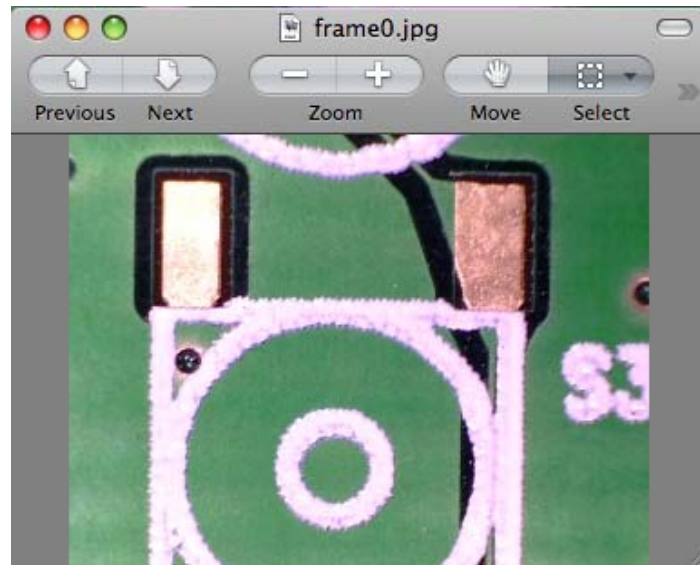
4. Photo & Video editing

Captured photo & video are listed on the right column.



1) photo

Double click a photo icon, the photo will pop up.

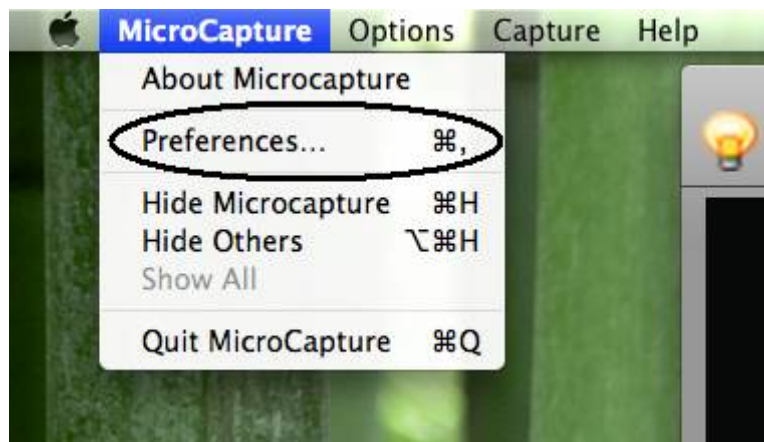


You can then carry out operations on it as normally you do on Mac system.

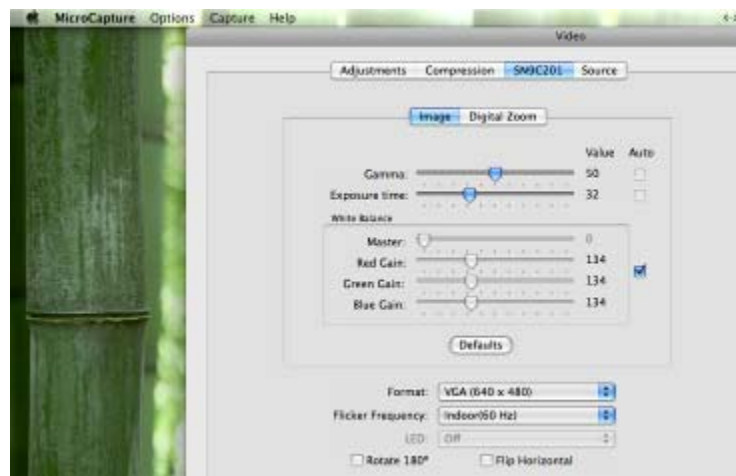
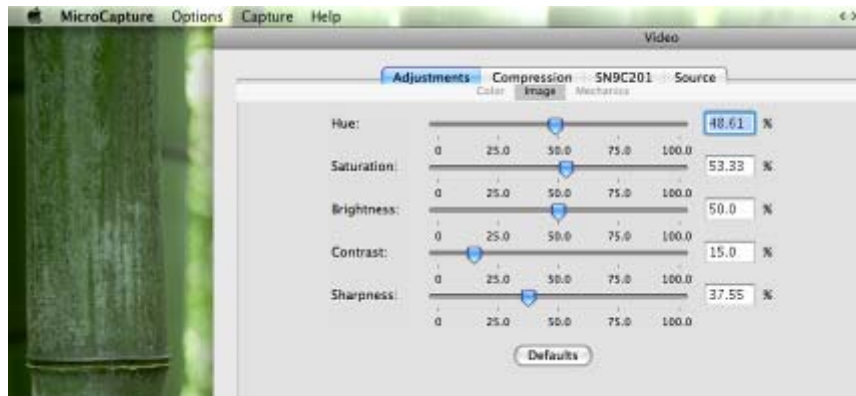
2) Video

Click a video clip icon, the video will play automatically.

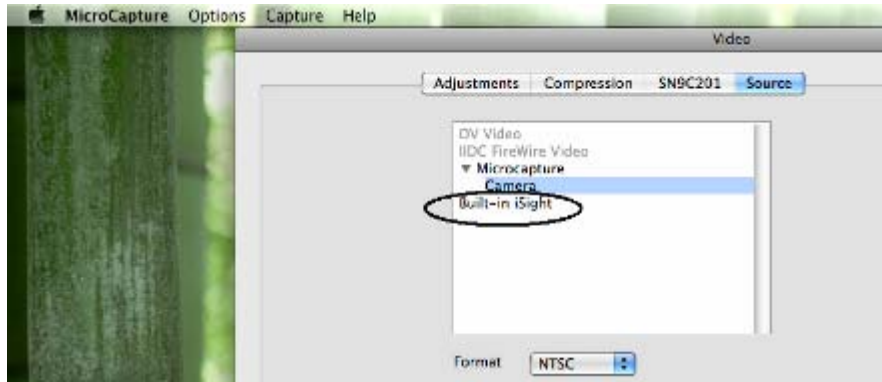
5. Preferences



Under preferences, you can change brightness, sharpness, saturation, hue, format etc as follows:

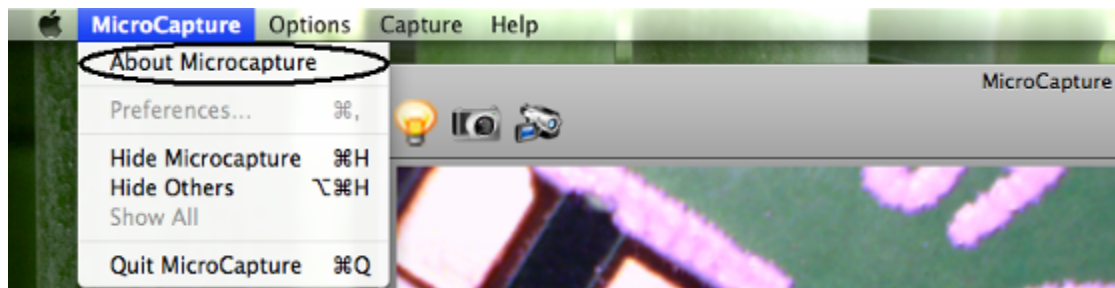


Note: if your Mac has an built-in camera, do not use the camera under MicroCapture; otherwise the software cannot work normally and you have to restart MicroCapture.



6. Help info

By choosing *About MicroCapture*, you can get help info from your local agent.



7. Quit MicroCapture

Choose *Quit MicroCapture* as follows, you can quit the software.



Safety:

- The Microscope is non-waterproof, so keep it dry.
- Do not use it in humid place like bathrooms. A dry environment will extend its life.
- User the Microscope only at -5°C-50°C.
- Suddenly temperature change may form dew inside the Microscope, like entering a warm room in cold winter. Put it inside a handbag or plastic bag to slow temperature changes.
- Do not let the Microscope lens face the sun or strong light for a long time. Powerful light may hurt the light-sensitive electronics.
- Avoid touching the lens.
- The white LEDs which illuminate the Microscope target field are very bright. Do not stare directly into these LEDs because it may damage your eyes.
- The clear plastic distance shell sometimes picks up dirt or toxic material from a microscopically observed surface. Be careful touching this to the human skin. Wash carefully or disinfect as needed.
- Do not unplug the Microscope from USB port when LEDs are on. This may cause information loss or circuit damage. Please always close MicroCapture and then unplug the Microscope.